



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
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ATLANTA, GEORGIA 30303-3104

June 2, 2020

Mr. Paul Miller, PE
Director
Division of Water
KY Dept. for Env. Protection
300 Sower Boulevard, 3rd Floor
Frankfort, Kentucky 40601

Dear Mr. Miller:

The U.S. Environmental Protection Agency has completed its review of amendments to 401 KAR 10:001, 10:026, 10:029, 10:030 and 10:031 of Kentucky's water quality standards regulations. The revisions were adopted as a result of the Kentucky Division of Water's (KDOW) triennial review of water quality standards, as required under the provisions of Clean Water Act Section 303(c). KDOW held a public hearing on July 23, 2019 regarding these revised water quality regulations. The revisions were considered by the legislative Administrative Regulation Review Subcommittee on November 12, 2019 and subsequently referred to the Natural Resources and Energy Committee on December 4, 2019. The committee did not meet to consider these regulations within 30 days and therefore, all five regulations became effective January 5, 2020. KDOW submitted new and revised water quality standards to the EPA by letter dated February 26, 2020, which was received by the EPA on March 3, 2020. KDOW's submittal included a certification letter dated February 24, 2020, signed by Elizabeth Natter, General Counsel for the Kentucky Energy and Environment Cabinet, which stated that the revisions were duly adopted in accordance with Kentucky law.

As laid out in the enclosed decision document, titled *Decision Document of the United States Environmental Protection Agency Review of Amendments to Kentucky's Water Quality Regulations at 401 KAR 10:001, 10:026, 10:029, 10:030 and 10:031 Under § 303(c) of the Clean Water Act*, the EPA is approving all new and revised water quality standards as documented in all five regulations. These revisions include, but are not limited to, amendments to add fifty-seven Outstanding State Resource Waters, the addition of twenty-nine streams or stream segments to the Exceptional Waters category, the adoption of aquatic life criteria for cadmium and carbaryl, and the adoption of a compliance schedule authorizing provision.

We would like to commend you and your staff for your continued efforts to protect and enhance Kentucky's waters during this rulemaking. We appreciate Kentucky's efforts throughout the water quality standards development process. If you have questions regarding this action by the EPA, please contact me at 404-562-9345 or have a member of your staff contact Joel Hansel at 404-562-9274.

Sincerely,

Jeaneanne M. Gettle, Director
Water Division

Enclosure

Decision Document of the United States Environmental Protection Agency Review of Amendments to Kentucky's Water Quality Regulations at 401 KAR 10:001, 10:026, 10:029, 10:030 and 10:031 under § 303(c) of the Clean Water Act

This document summarizes the EPA review of the revisions to Water Quality Regulations at 401 KAR 10:001, 10:026, 10:029, 10:030, and 10:031 as adopted by the Commonwealth of Kentucky. These revisions were adopted as a result of Kentucky's water quality standards rulemaking. The Commonwealth submitted the water quality standards (WQS) revisions by letter dated February 26, 2020, from Anthony Hatton, Commissioner, Kentucky Department for Environmental Protection, to Mary Walker, Regional Administrator, Environmental Protection Agency, Region 4. The EPA received the revisions on March 3, 2020. The submittal to the EPA included a certification letter dated February 24, 2020, signed by Elizabeth Natter, General Counsel for the Kentucky Energy and Environment Cabinet, which stated that the revisions were duly adopted in accordance with Kentucky law. A public hearing was held on July 23, 2019. In response to the public comments received, the Commonwealth prepared a Statement of Consideration with an associated Response to Comments dated September 13, 2019. The revisions were considered by the legislative Administrative Regulation Review Subcommittee on November 12, 2019 and subsequently referred to the Natural Resources and Energy Committee on December 4, 2019. The committee did not meet to consider these regulations within 30 days and therefore, all five regulations became effective January 5, 2020.

Additions to the Commonwealth's water quality standards regulations are shown underlined below, while deletions to the regulations are shown with strikethrough as necessary. As discussed more fully below, where the EPA has determined that the Commonwealth's rule revisions are themselves new or revised WQS, the EPA has reviewed and acted on these revisions pursuant to Section 303(c) of the Clean Water Act (CWA).¹ Section 303 of the CWA, 33 U.S.C. § 1313, requires states to establish WQS and to submit any new or revised standards to the EPA for review and approval or disapproval. The EPA's implementing regulations require states to adopt water quality criteria that protect the designated use. See 40 C.F.R. § 131.11(a). Such criteria must be based on a sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use. Id. For waters with multiple use designations, the criteria shall support the most sensitive use. Id. In addition, the EPA's regulations require that in establishing criteria, a state shall consider WQS of downstream waters and shall ensure that its WQS provide for the attainment and maintenance of WQS of downstream waters. See 40 C.F.R. § 131.10(b).

A state's submission of water quality criteria must include (1) the methods used and analyses conducted to support water quality standards revisions, (2) water quality criteria sufficient to protect the designated uses and (3) a certification by the State Attorney General or other appropriate legal authority within the state that the water quality standards were duly adopted pursuant to state law. See 40 C.F.R. § 131.6.

Based on the review of the Commonwealth's submittal, the EPA has determined that the new and revised standards listed below are consistent with 40 C.F.R. Part 131 and Section 303 of the CWA. Therefore, the EPA is approving the following new and revised WQS:

- Revisions to 401 KAR 10:010, to add, modify or delete 32 definitions.

¹ The EPA has provided FAQs on "What is a New or Revised Water Quality Standard Under CWA 303(c)(3)?" at <http://water.epa.gov/scitech/swguidance/standards/cwa303faq.cfm>. The link provides detailed information of such analysis.

- Revisions to 401 KAR 10:026, Section 2. to add citations to 40 C.F.R. § 131.10(g), define required documentation for combined sewer overflows seeking reclassification, and add a requirement to re-examine certain classifications every 3 years.
- Revisions to 401 KAR 10:026, Section 3. to limit the amount of documentation needed for certain Outstanding State Resource Water designations.
- Revisions to 401 KAR 10:026, Section 5. Table B to change how waters with a Domestic Water Supply designation are delineated.
- Revisions to 401 KAR 10:026, Section 5. Table C to add or modify Outstanding State Resource Water designations for 57 streams or stream segments.
- Revision to 401 KAR 10:029, Section 1. to clarify that existing uses are also protected under the Antidegradation Policy.
- Revision to 401 KAR 10:029, Section 4.(1)(h) to formalize the removal of mixing zones for bioaccumulative chemicals of concern.
- Revisions to 401 KAR 10:030, Section 2. Table 2 to add or modify Exceptional Waters designations for 29 streams or stream segments and to use latitude and longitude measurements as opposed to river miles to define boundaries of Exceptional Waters designations.
- Revision to 401 KAR 10:030, Section 1.(4)(a)1. to state that if a water is assessed as not fully supporting for any designated use, it shall be categorized as impaired.
- Revision to 401 KAR 10:031, Section 4.(1)(d)3. to delete a surface water temperature guideline table.
- Revisions to 401 KAR 10:031, Section 6. Table 1 to revise the aquatic life criteria for cadmium, adopt the aquatic life criteria for carbaryl and delete the egg/ovary selenium aquatic life criteria. Also added the option to use the copper biotic ligand model (BLM) for site specific criteria derivation.
- Revisions to 401 KAR 10:031, Section 7.(1)(c) to delete fecal coliform criteria, adopt pH criteria, and allow for suspension of primary and/or secondary contact recreation during combined sewer overflow events consistent with provisions related to redesignation or exceptions granted by the Department.
- Revisions to 401 KAR 10:031, Section 8.(2)(c) to clarify the Cabinet's authority to establish more stringent criteria for Outstanding State Resource Waters.
- Revisions to 401 KAR 10:031, Section 9. to clarify the relationship of the state's water quality standards to those established by the Ohio River Valley Water Sanitation Compact and to remove nitrite-nitrogen criteria for the protection of human health.
- Revisions to 401 KAR 10:031, Sections 10. and 11. to provide an updated reference to EPA's latest edition of the Water Quality Standards Handbook and to link exceptions to the Federal variance provisions and public notice requirement under 40 CFR Section 131.
- Revision to 401 KAR 10:031 to add a new Section 12 to adopt a compliance schedule authorizing provision.

New and Revised Standards that are Approved by the EPA:

The Commonwealth adopted the following revisions, which are shown in underline (new provisions) and strikethrough (deleted provisions) in Appendices A-E:

Revisions to 401 KAR 10:010, to add, modify or delete 32 definitions.

The Commonwealth added six definitions, clarified 12 definitions, and deleted 14 definitions.

With respect to the six new definitions and the 12 definitions that were clarified, the EPA has determined that these terms and definitions are consistent with existing Federal regulation, guidance, and/or generally accepted scientific principles. Therefore, these revisions are consistent with the CWA and 40 C.F.R. Part 131. These revisions are in Appendix A.

With respect to the 14 definitions that were removed, the Commonwealth indicated that these terms are associated with the permitting process and were not removed in 2008 when the water quality standards regulations were re-codified from 401 KAR Chapter 5 to Chapter 10. None of these terms appear in 401 KAR Chapter 10 and therefore, the terms and associated definitions are unnecessary. Therefore, these revisions are consistent with the CWA and 40 C.F.R. Part 131.

Revisions to 401 KAR 10:026, Section 2. to add citations to 40 C.F.R. Part 131.10(g), define required documentation for combined sewer overflows seeking reclassification, and to add a requirement to re-examine certain classifications every three years.

The Commonwealth added citations to 40 C.F.R. Part 131.10(g) to define the rationale and requirements for reclassifications that will result in uses lower than CWA Section 101(a)(2). An additional requirement was added that any reclassifications under this Section will need to be re-evaluated every three years, consistent with the triennial review of water quality standards. These additions are consistent with the CWA and 40 C.F.R. Part 131.

The Commonwealth defined necessary documentation for combined sewer overflow dischargers to seek reclassification. Specifically, the discharger is required to supply, at a minimum, an updated Fiscal Capability Analysis and an updated engineering/alternatives analysis. Much of the information contained within these two documents is similar to documentation required for the removal of a use under 40 C.F.R. § 131.10(g)(6). To the extent that this documentation may, on a case by case basis, be insufficient to justify a reclassification, the Cabinet can require any additional information it deems necessary under other provisions of this Section. This addition is consistent with the CWA and 40 C.F.R. Part 131.

Revisions to 401 KAR 10:026, Section 3. to limit the amount of documentation needed for certain Outstanding State Resource Water designations.

The Commonwealth made changes to this Section which limits the amount of documentation needed for certain Outstanding State Resource Water designations, specifically those associated with the presence of Federally listed endangered or threatened species. This allows for the designation of these types of waters merely by the confirmation that these species are present in a water and does not require the additional information that other types of Outstanding State Resource Waters require. Because this designation is one that is at the Commonwealth's discretion, the amount of documentation is entirely at the Commonwealth's discretion. However, the designation generally is consistent with the intent of EPA's Antidegradation Policy and therefore, consistent with the CWA and 40 CFR Part 131.

Revisions to 401 KAR 10:026, Section 5. Table B to change how waters with a Domestic Water Supply designation are delineated.

The Commonwealth made changes to this table that now identify the drinking water intake location by latitude and longitude as opposed to river mile. Additionally, the Commonwealth has included the facility identification number for the intake. Both actions allow for a more accurate delineation of where each Domestic Water Supply designation applies. Therefore, these actions are consistent with the CWA and 40 C.F.R. Part 131.

Revisions to 401 KAR 10:026, Section 5. Table C to add or modify Outstanding State Resource Water designations for 57 streams or stream segments.

The Commonwealth added 57 stream segments to the Outstanding State Resource Water designation due to the presence of federally listed Endangered and/or Threatened species. This designation is consistent with the requirements of 401 KAR 10:026 Section 3(2). A copy of the table is contained in Appendix B of this document. This classification provides additional protections and requirements and is consistent with the CWA and 40 C.F.R. Part 131.

Revision to 401 KAR 10:029, Section 1. to clarify that existing uses are also protected under the Antidegradation Policy.

The Commonwealth added that existing uses are also protected under the Antidegradation Policy. This addition is consistent with the CWA and 40 C.F.R. Part 131.

Revision to 401 KAR 10:029, Section 4.(1)(h) to formalize the removal of mixing zones for bioaccumulative chemicals of concern.

The Commonwealth previously had a statement under this Section that mixing zones for bioaccumulative chemicals of concern would not have an expiration date later than September 8, 2014. This deletion formalizes the removal of mixing zones for these chemicals within the Commonwealth. This revision is consistent with the CWA and 40 C.F.R. Part 131.

Revisions to 401 KAR 10:030, Section 2. Table 2 to add or modify Exceptional Waters designations for 29 streams or stream segments and to use latitude and longitude measurements as opposed to river miles to define boundaries of Exceptional Waters designations.

The Commonwealth added or modified 12 stream segments to the Exceptional Waters designation due to the presence of an exceptional or “excellent” biological community. This designation is consistent with the requirements of 401 KAR 10:030 Section 1(2)(a)3. Additionally, the Commonwealth has changed the delineation of Exceptional Waters from river miles to latitude and longitude measurements to increase the accuracy of the delineation. A copy of the table is contained in Appendix D of this document. This classification provides additional protections and requirements and is consistent with the CWA and 40 C.F.R. Part 131.

Revision to 401 KAR 10:030, Section 1.(4)(a)1. to state that if a water is assessed as not fully supporting for any designated use, it shall be categorized as impaired.

The Commonwealth changed existing language to conform with the requirements of 40 C.F.R. § 131.12(a)(2)(i). This revision is consistent with the CWA and 40 C.F.R. Part 131.

Revision to 401 KAR 10:031, Section 4.(1)(d)3. to delete a surface water temperature guideline table.

The Commonwealth deleted a table of guideline values for temperature in surface waters. The deletion of these values does not change the underlying water quality standard which precedes this table in the regulation. This revision is consistent with the CWA and 40 C.F.R. Part 131.

Revisions to 401 KAR 10:031, Section 6. Table 1 to revise the aquatic life criteria for cadmium, adopt the aquatic life criteria for carbaryl and delete the egg/ovary selenium aquatic life criteria. Also added the option to use the copper biotic ligand model for site-specific criteria derivation.

The Commonwealth revised the aquatic life criteria for cadmium to align with the EPA's latest CWA Section 304(a) guidance value. Additionally, the Commonwealth adopted aquatic life criteria for carbaryl consistent with the EPA's latest CWA Section 304(a) guidance value. Therefore, these criteria are consistent with the CWA and 40 C.F.R. Part 131.

The EPA previously disapproved the egg/ovary value for selenium which means the value never went into effect for CWA purposes. The action by the Commonwealth to delete the egg/ovary value brings the regulation in line with the currently applicable water quality criteria. As such, this deletion is consistent with the CWA and 40 C.F.R. Part 131.

The Commonwealth added the use of the EPA's copper BLM as an option for the development of site-specific criteria. The EPA's review of this addition to the water quality standards does not find any specificity to the use of the BLM; therefore, this is not a performance based criteria provision, and the EPA expects that individual petitions to use the model and resulting criteria will also require an appropriate water quality standards revision. Therefore, the EPA's action here is to merely approve the option to use the BLM in site-specific instances. Since the citation is consistent with the EPA's latest published guidance, this option is consistent with the CWA and 40 C.F.R. Part 131.

Revisions to 401 KAR 10:031, Section 7.(1)(c) to delete fecal coliform criteria, adopt pH criteria, and allow for suspension of primary and/or secondary contact recreation during combined sewer overflow events consistent with provisions related to re-designation or exceptions granted by the Department.

The Commonwealth previously adopted, and the EPA approved, an expiration date of November 1, 2019 for the fecal coliform bacteria criteria. This revision to delete the fecal coliform criteria is consistent with that expiration date and, therefore, consistent with the CWA, 40 C.F.R. Part 131, and the EPA's previous approval.

The Commonwealth adopted a pH criterion for the Recreational classification with a range of 6 to 9 and not greater than a 1.0 change over twenty-four hours. The EPA's current recommendation for human health protection is in the range of 5-9. This revision is consistent with the EPA's latest recommendation and 40 C.F.R. Part 131.

The Commonwealth adopted language that allows for the suspension of primary and/or secondary contact recreation based on a successful demonstration of either a redesignation pursuant to a use attainability analysis and/or an exception/variance. The limited suspension detailed in this revision is a natural outgrowth of an appropriate demonstration. This revision is consistent with the CWA and 40 C.F.R. Part 131.

Revisions to 401 KAR 10:031, Section 8.(2)(c) to clarify the Cabinet's authority to establish more stringent criteria for Outstanding State Resource Waters.

The Commonwealth received an adverse ruling from the Office of Administrative Hearings that required these revisions to clarify the Cabinet's authority, specifically the process by which the Cabinet would determine and assign more stringent criteria. Actions related to Outstanding State Resource Waters are at the Commonwealth's discretion; however, such actions derive from the Antidegradation Policy and therefore, need to be reviewed by EPA pursuant to 40 CFR Part 131. These revisions are consistent with the CWA and 40 CFR Part 131.

Revisions to 401 KAR 10:031, Section 9. to clarify the relationship of the Commonwealth's water quality standards to those established by the Ohio River Valley Water Sanitation Compact (ORSANCO) and to remove nitrite-nitrogen criteria for the protection of human health.

ORSANCO adopts water quality standards for the Ohio River as part of its Congressional mandate. The interplay between ORSANCO water quality standards and those of member states has often been a confusing issue. This language clarifies how the water quality standards of the Commonwealth apply. Additionally, the Commonwealth removed an outdated nitrate-nitrogen criterion for the mainstem of the Ohio River. The criteria now reverts to the nitrate-nitrogen criteria contained within Table 1 of Section 6 of this Chapter. The criteria for this parameter are consistent with the EPA's latest recommendation for the protection of human health. These revisions are consistent with the CWA and 40 C.F.R. Part 131.

Revisions to 401 KAR 10:031, Sections 10. and 11. to provide an updated reference to the EPA's latest edition of the Water Quality Standards Handbook and to link exceptions to the Federal variance provisions and public notice requirement under 40 CFR Part 131.

The Commonwealth updated the citation for the EPA's Water Quality Standards Handbook to the latest edition. Additionally, these Sections were revised to link the Commonwealth's exceptions to water quality standards to the Federal variance and water quality provisions at 40 C.F.R. Part 131. These revisions are consistent with the CWA and 40 C.F.R. Part 131.

Revision to 401 KAR 10:031 to add a new Section 12. to adopt a compliance schedule authorizing provision.

With recent revisions to 40 C.F.R. Part 131, the EPA requires an explicit compliance schedule authorizing provision in State water quality standards (40 C.F.R. Part 131.15) for States to be able to issue compliance schedules within the permitting program. The Commonwealth has added this Section to comply with this requirement. This revision is consistent with the CWA and 40 C.F.R. Part 131.

Review of Non-substantive Revisions to Water Quality Standards

With the exception of the aforementioned revisions, the EPA has determined that all of the additional changes within 401 KAR 10:001, 10:026, 10:029, 10:030 and 10:031 are editorial, non-substantive changes to Kentucky's EPA-approved water quality standards or are not new or revised water quality standards. The EPA approves the editorial, non-substantive changes as being consistent with the CWA and the EPA's implementing regulations. The EPA notes, however, that its approvals of these editorial, non-substantive changes do not re-open the EPA's prior approvals of the underlying substantive water quality standards. Appendices A-E of this document are the respective rules, indicating additions with an underline and deletions with strikeout.

The EPA's action to approve new and revised standards is subject to consultation under section 7(a)(2) of the Endangered Species Act (ESA), 16 U.S.C. § 1536(a)(2). Based on review of available information, the EPA has made a 'No Effect' determination under ESA section 7 on the approval of the revision to the water quality standards to the fecal coliform criteria and adoption of pH criteria for recreational waters based on the fact that the criteria were originally established for the protection of human health as an endpoint. The EPA has also made a 'No Effect' determination for all revisions related to re-designations and exceptions as these revisions do not result in actual changes to instream water quality, but rather authorize such actions to take place on a case-by-case basis in the future, and all such actions will undergo separate water quality standards actions that would require ESA consultation in the future. Additionally, the EPA determined the revision to delete the egg/ovary value for selenium would have 'No Effect' on federally listed species because this action only reflects the currently applicable criterion based on the EPA's previous disapproval, i.e., there is no change to the status quo. Also, the EPA determined that the Agency has "no discretion" in the designation of 57 stream segments as Outstanding State Resource Waters, 29 segments as Exception Waters, the revisions to waters designated as public water supply use, and the addition of 'existing uses' to the Antidegradation Policy because the EPA is not authorized to require anything more than the requirements listed in 40 C.F.R. § 131.12. The EPA requested concurrence from the U.S. Fish and Wildlife Service that the adopted cadmium and carbaryl criteria 'May Effect, but Not Likely to Adversely Affect' listed species within Kentucky. The EPA received that concurrence on May 29, 2020.

Conclusion

Based on the reasons outlined above, the EPA concludes that the requirements of the CWA and 40 C.F.R. § 131 have been met for the new or revised WQS. The EPA approves the revised standards addressed in this Decision Document pursuant to Section 303(c) of the CWA.

Date

Jeaneanne M. Gettle, Director
Water Division

Appendix A (401 KAR 10:001)

Appendix B (401 KAR 10:026)

Appendix C (401 KAR 10:029)

Appendix D (401 KAR 10:030)

Appendix E (401 KAR 10:031)